IN THE CLAIMS:

A complete listing of the claims of this application, including any amendments made by this paper, follows below:

1. (Currently Amended) A control system for controlling a brake system of a braked vehicle during a turn, said vehicle having four wheels, said control system being configured to selectively modify a brake pressure applied to each of said wheels by said brake system, said control system being configured to receive a driver input relating to a brake pressure sought to be applied, said control system comprising a controller for monitoring a slip status of each of said four wheels during a turn and wherein said controller is configured to direct said brake system to independently increase, decrease, or hold the brake pressure applied to each of said four wheels based at least in part upon slip status of each respective wheel and wherein said controller is configured to direct said brake system to increase, decrease or hold said brake pressure applied to each of said wheels such that the brake pressure applied to a given wheel of said four wheels is always equal to or less than said brake pressure sought to be applied.

2. (Original) The system of claim 1 wherein said slip status of each wheel is related to the difference between a speed of each wheel and an adjusted speed of said vehicle.

3. (Original) The system of claim 2 wherein said slip status of each wheel is represented by the associated difference divided by the adjusted speed of said vehicle.

4. (Original) The system of claim 2 wherein said adjusted speed of said vehicle incorporates the speed of said vehicle at a center of gravity of said vehicle.

5. (Original) The system of claim 2 wherein said adjusted speed of said vehicle incorporates the speed of said vehicle at a center of gravity of said vehicle and a yaw velocity component of said vehicle.

6. (Original) The system of claim 5 wherein said controller is configured to determine a corrective differential velocity which represents a velocity difference between at least one wheel on one side of said vehicle and at least another wheel on another side of said vehicle that is desired to maintain the desired heading of said vehicle, and wherein said adjusted speed of said vehicle incorporates said corrective differential velocity.

7. (Original) The system of claim 1 wherein said controller is configured to determine a corrective differential velocity which represents a velocity difference between at least one wheel on one side of said vehicle and at least another wheel on another side of said vehicle that is desired to maintain the desired heading of said vehicle, and wherein said controller is configured to independently direct said brake system to increase, decrease, or hold the brake pressure applied to each of said four wheels based at least in part upon said corrective differential velocity.

8. (Original) The system of claim 1 wherein said controller is configured to direct said brake system to decrease brake pressure to a wheel when the slip status for that wheel exceeds a first slip value.

9. (Original) The system of claim 8 wherein said controller is configured to determine a corrective differential velocity which represents a velocity difference between at least one wheel on one side of said vehicle and at least another wheel on another side of said vehicle that is desired to maintain the desired heading of said vehicle, and wherein said controller is configured to direct said brake system to decrease brake pressure to a wheel when the slip for that wheel exceed a second slip value and when such a decrease would improve the stability of the vehicle based upon an examination of said corrective differential velocity.

10. (Original) The system of claim 9 wherein said controller is configured to determine whether a decrease would improve the stability of the vehicle based upon an examination of said corrective differential velocity by comparing the magnitude of the corrective differential velocity to a differential velocity threshold.

11. (Original) The system of claim 10 wherein said comparison includes consideration of the direction of the turn.

12. (Original) The system of claim 9 wherein said first slip value is greater than said second slip value.

13. (Original) The system of claim 1 wherein said controller is configured to direct said brake system to increase brake pressure to a wheel when the slip status for that wheel is less than a third slip value.

14. (Currently Amended) The system of claim 1 wherein said controller is configured to direct said brake system to increase brake pressure to one of said wheels only when the pressure in the brake ~~of interest~~ associated with said one of said wheels is less than the pressure in a master cylinder of the brake system.

15. (Original) The system of claim 13 wherein said controller is configured to determine a corrective differential velocity which represents a velocity differential between at least one wheel on one side of said vehicle and at least another wheel on another side of said vehicle that is desired to maintain the desired heading of said vehicle, and wherein said controller is configured to direct said brake system to increase brake pressure to a wheel when the slip for that wheel exceed a fourth slip value and when such an increase would improve the stability of the vehicle based upon an examination of said corrective differential velocity.

16. (Original) The system of claim 15 wherein said controller is configured to determine that a increase would improve the stability of the vehicle based upon an examination of said corrective differential velocity by comparing the magnitude of the corrective differential velocity to a differential velocity threshold.

17. (Original) The system of claim 16 wherein said comparison includes consideration of the direction of the turn.

18. (Original) The system of claim 15 wherein said third slip value is less than said fourth slip value.

19. (Original) The system of claim 1 wherein said system further includes a vehicle having a plurality of wheels and a plurality of brake subsystems, each brake subsystem being associated with one of said wheels to apply a brake pressure to the associated wheel, and wherein said controller is operatively coupled to each brake subsystem.

20. (Original) The system of claim 1 wherein said controller is arranged in a closed-loop configuration such that said controller generally continuously repeats said monitoring and said increasing, decreasing or holding.

21. (Currently Amended) A control system for controlling a brake system of a braked vehicle during a turn, said vehicle having a plurality of wheels, said control system being configured to selectively modify a brake pressure applied to each of said wheels by said brake system, said control system being configured to receive a driver input relating to a brake pressure sought to be applied, said control system comprising a controller for determining a corrective differential velocity which represents a velocity differential between at least one wheel on one side of said vehicle and at least another wheel on another side of said vehicle that is desired to maintain the desired heading of said vehicle, and wherein said controller is configured to direct said brake system to increase, decrease, or hold the brake pressure applied to each of said wheels based at least in part upon said corrective differential velocity and wherein said controller is configured to direct said brake system to increase, decrease, or hold said brake pressure sought to be applied to each of said wheels such that the brake pressure applied to a given wheel <u>of said plurality of wheels</u> is always equal to or less than said brake pressure sought to be applied.

22. (Original) The system of claim 21 wherein said vehicle has four wheels and wherein said controller is configured to direct said brake system to independently increase, decrease, or hold the brake pressure applied to each of said four wheels.

23. (Original) The system of claim 22 wherein said controller is configured to direct said brake system to independently increase, decrease, or hold the brake pressure applied to each of said four wheels based at least in part upon slip status of each respective wheel.

24. (Original) The system of claim 23 wherein said slip status of each wheel is related to the difference between a speed of each wheel and an adjusted speed of said vehicle.

25. (Original) The system of claim 24 wherein said adjusted speed of said vehicle incorporates the speed of said vehicle at a center of gravity of said vehicle.

26. (Original) The system of claim 21 wherein said controller is configured to direct said brake system to decrease brake pressure to a wheel when the slip status for that wheel exceeds a first slip value.

27. (Original) The system of claim 21 wherein said controller is configured to direct said brake system to increase brake pressure to a wheel when the slip status for that wheel is less than a second slip value.

28. (Original) The system of claim 21 wherein said system further includes a vehicle having a plurality of wheels and a plurality of brake subsystems, each brake subsystem being associated with one of said wheels to apply a brake pressure to the associated wheel, and wherein said controller is operatively coupled to each brake subsystem.

29. (Original) The system of claim 21 wherein said controller is arranged in a closed-loop configuration such that said controller generally continuously repeats said monitoring and said increasing, decreasing or holding.

30. (Currently Amended) A method for controlling a brake system of a vehicle during a turn, said vehicle having four wheels, the method comprising:

receiving a driver input relating to a brake pressure sought to be applied to each of said wheels;

monitoring a slip status of each of said four wheels during a turn; and

independently increasing, decreasing, or holding the brake pressure applied to each of said four wheels based at least in part upon slip status of each respective wheel such that said brake pressure applied to a given wheel of said four wheels is always equal to or less than said brake pressure sought to be applied.

31. (Currently Amended) A method for controlling a brake system of a vehicle during a turn, said vehicle having a plurality of wheels, the method comprising:

receiving a driver input relating to a brake pressure sought to be applied to each of said wheels;

determining a corrective differential velocity which represents a velocity differential between at least one wheel on one side of said vehicle and at least another wheel on another side of said vehicle that is desired to maintain ~~the~~ a desired heading of said vehicle; and

increasing, decreasing, or holding the brake pressure applied to each of said wheels based at least in part upon said determined corrective differential velocity such that the brake pressure applied to a given wheel of said plurality of wheels is always equal to or less than said brake pressure sought to be applied.

32. (Previously Presented) The control system of claim 1 further including a master cylinder and a brake pedal operatively coupled to said master cylinder such that when a driver depresses said brake pedal said brake pressure sought to be applied is created in said master cylinder, and wherein said control system is configured such that said control system cannot modify a brake pressure applied to any of said wheels in a manner such that the brake pressure applied to that wheel is higher than said pressure in said master cylinder.

33. (Previously Presented) The control system of claim 1 wherein said brake pressure sought to be applied is directly related to a driver input via a brake pedal.

34. (Previously Presented) The control system of claim 21 wherein said controller is configured to direct said brake system to increase brake pressure to one of said wheels only when the pressure in the brake of interest is less than the pressure in a master cylinder of the brake system.

35. (Previously Presented) The control system of claim 21 further including a master cylinder and a brake pedal operatively coupled to said master cylinder such that when a driver depresses said brake pedal said brake pressure sought to be applied is created in said master cylinder, and wherein said control system is configured such that said control system cannot modify a brake pressure applied to any of said wheels in a manner such that the brake pressure applied to that wheel is higher than said pressure in said master cylinder.

36. (Previously Presented) The control system of claim 21 wherein said brake pressure sought to be applied is directly related to a driver input via a brake pedal.

37. (Previously Presented) The method of claim 30 wherein said vehicle further includes a master cylinder and a brake pedal operatively coupled to said master cylinder such that when a driver depresses said brake pedal said brake pressure sought to be applied is created in said master cylinder, and wherein said increasing, decreasing or holding step is carried out such that said the brake pressure applied to any of said wheels is never higher than said pressure in said master cylinder.

38. (Previously Presented) The method of claim 31 wherein said vehicle further includes a master cylinder and a brake pedal operatively coupled to said master cylinder such that when a driver depresses said brake pedal said brake pressure sought to be applied is created in said master cylinder, and wherein said increasing, decreasing or holding step is carried out such that

said the brake pressure applied to any of said wheels is never higher than said pressure in said master cylinder.